

Provider: Mark Wood, MD

Physical Therapy ACL Protocol

Time	Goals	Activities
0-7 Days	1. Decrease pain and swelling	1. Use of ice, compression and elevation.
	2. Improve joint nutrition. Progressive weight bearing as tolerated.** Unlock brace (0° to 90°).** **With meniscus repair, TDWB (full ROM after 4 weeks)	2. Emphasize normal gait pattern with or without assistive device. Wean crutches with quad control and safety.
	3. Immediate early motion 0° to 90° by 3 weeks. Avoid hyperextension.	3. Heel slides, wall slides, prone lying and patella glides.
	4. Initiate muscular control, and LED conditioning.	4. E-stim for muscle re-education <ul style="list-style-type: none"> • Quad sets, ham sets, adductor sets • Weight shifts: med/lat, ant/post • Mini squats • Prone and standing H-S curls • 4-direction SLR
	5. Assist with wound care.	Teach band-aids/gauze. Shower after 72-hours.

Time	Goals	Activities
2-4 Weeks	1. Normal gait (FWB w/heel to toe pattern), wean from crutches by wk 1-2; wean from brace by wk 6. ** With meniscus repair, TDWB (full ROM after 4 weeks)	1. Gait training and treadmill walking.
	2. Continue ROM 0° to 130°, open brace as tolerated.	2. Half arcs to full revolution on bike <ul style="list-style-type: none"> • AAROM for flex and ext w/ therapists

		<ul style="list-style-type: none"> Continue heel slides, wall slides and prone extension hangs
	3. Achieve full patella mobility.	3. Patella glides in all directions.
	4. Initiate muscular control, and LED conditioning.	4. Unilateral squats & calf raises <ul style="list-style-type: none"> Step-ups (forward, retro & lateral) Step-overs Wall squats with swiss ball Add cuff weights to thigh during SLR (4 direction)
	5. Improve LE balance and proprioception.	5. BAPS – limit medial excursion (towel under medial curve) <ul style="list-style-type: none"> Unilateral balancing on affected leg, progress to movement of uninvolved extremity, even to uneven surface and eyes open to eyes closed during these activities. Unilateral standing with forward, backward and lateral reaches with unaffected LE.
	6. General body conditioning.	6. UBE, treadmill, stair stepper

Time	Goals	Activities
5-8 Weeks	1. Knee flexion and extension ROM equal to uninvolved.	1. Continue ROM exercises if needed.
	2. Patient to be without swelling in the knee.	2. Remeasure circumference. Ice prn.
	3. Continue to improve LE strength, endurance and functional activities.	3. Total gym single leg squats and calf raises, increase difficulty. <ul style="list-style-type: none"> Increase height of step-ups (forward, lateral, retro) and can perform against tubing. Increase height of step-overs Unilateral stool scoots, increase distance. Full wall squats. Cycling against resistance.

		<ul style="list-style-type: none"> • Supervised treadmill forward and retro walking. • Stair stepper forward and retro. • Lunges in various directions, progress to performing against resistance or while holding hand weights. • Reach-out with uninvolved LE ant/post/lat • Initiate isokinetic work of hamstrings at 120°/sec or faster if desired. Limit ext. to 30°.
	4. Continue to improve LE balance and proprioception.	4. Increase difficulty level of BAPS <ul style="list-style-type: none"> • Fitter.

Time	Goals	Activities
9-13 Weeks	1. Continue progression of strength and endurance, while protecting graft during this vulnerable healing time. Increase patient confidence in use of knee.	1. Continue with exercise as stated in previous section. <ul style="list-style-type: none"> • Fitter for lateral training • Mini tramp hopping and trotting • Jumping in various directions (side to side, in place, front to back and diagonal) even surface with both feet • Seated leg extension • Carioca and side gallop • Can initiate isokinetic work of quadriceps ROM 90° -30°. Speed at least 90°/sec.
	2. Patient participating in a gym or fitness center program one day per week.	2. Instruct patient in gym exercise program. May want to accompany them to the gym for one session to ensure proper set-up.

Time	Goals	Activities
14-16 Weeks	1. Able to initiate jogging program.	1. Assess readiness to begin jogging by isokinetic test results, elimination of swelling and no joint pain.
	2. Progress jogging program.	2. Can start program in pool or on mini tramp. Then progress to even surface beginning with .25 to .50 mile. Add approximately .24 to .50 mile per week.
	3. Increase intensity of sport drills and plyometrics.	3. Jump downs from step. <ul style="list-style-type: none"> • Figure 8's • One leg hops • Sprint work • Cutting • Shuttle runs
	4. Client performing gym exercise program for endurance and strengthening.	4. Gym program at least two (2) times per week.

Time	Goals	Activities
24+ Weeks	1. Progress sport specific drills (under PT or athletic trainer supervision).	2. Increase difficulty and intensity of drills with use of tubing, weights or plyoballs.
	2. Return to sport program	2. Begin with non-competitive situations. Progress from clinic to controlled practice to scrimmage to game.
	3. Independent with home/gym exercise program.	3. Continue exercise program at least three (3) times per week.

Time	Goals	Activities
~ 36 Weeks	1. Full contact when RTS objective testing documented (typically 9-12 months).	

Discharge Testing

1. Perform isokinetic tests/dynamometry at six (6) months and each month prior to discharge. Goal is quadriceps deficit of <5%, hamstring deficit <5%, H/Q ration.
2. Full knee, pain-free ROM as compared to uninvolved side.
3. Hop tests at 95% of uninvolved side.